





# ***Outlook for Rail Transportation in Virginia***



**2004 Virginia Transportation Conference**

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Assistant Vice President  
Ports and International**

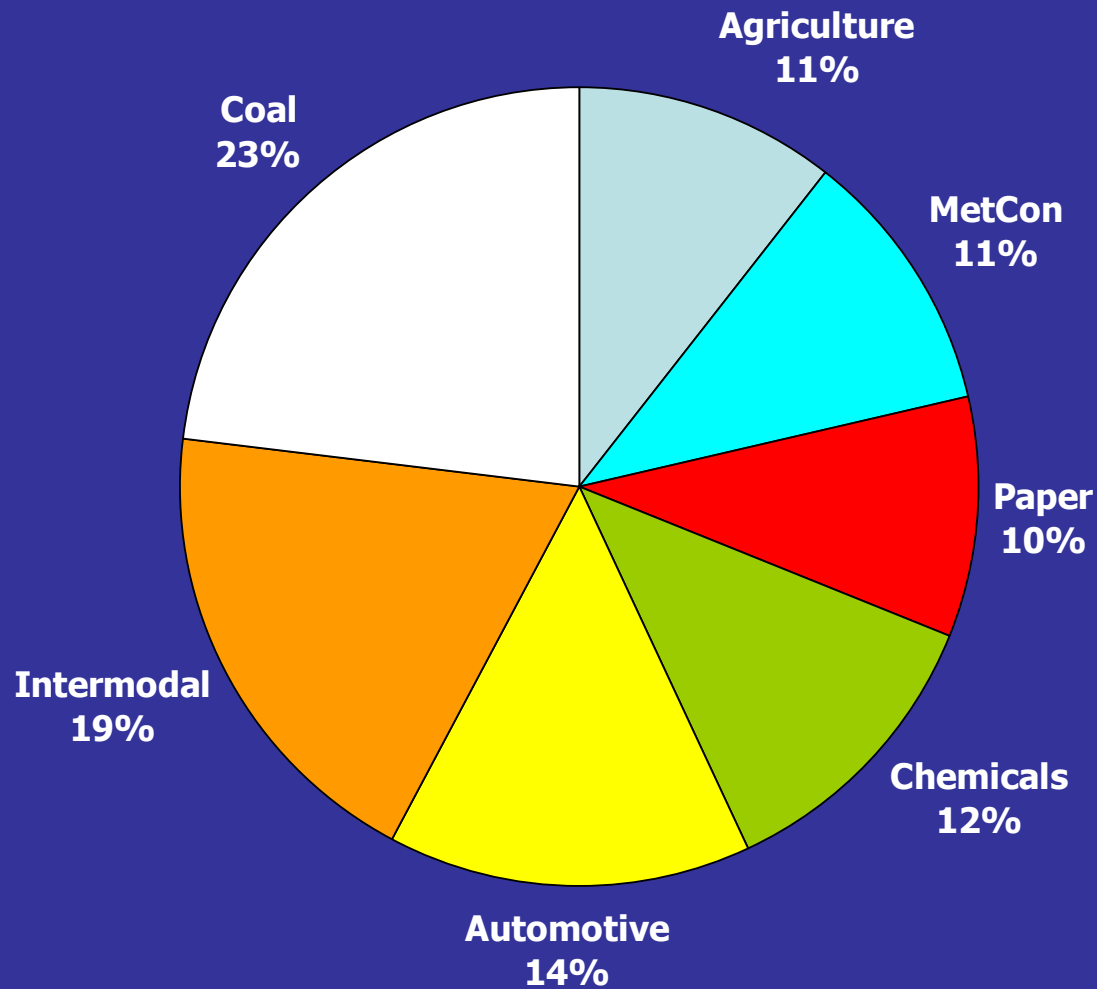


***The Outlook for Norfolk Southern  
Rail Transportation in Virginia  
is Excellent***



# NS 2003 Operating Revenues

## Total NS Revenue \$6.5 Billion



Safety has always been of paramount importance to NS ...



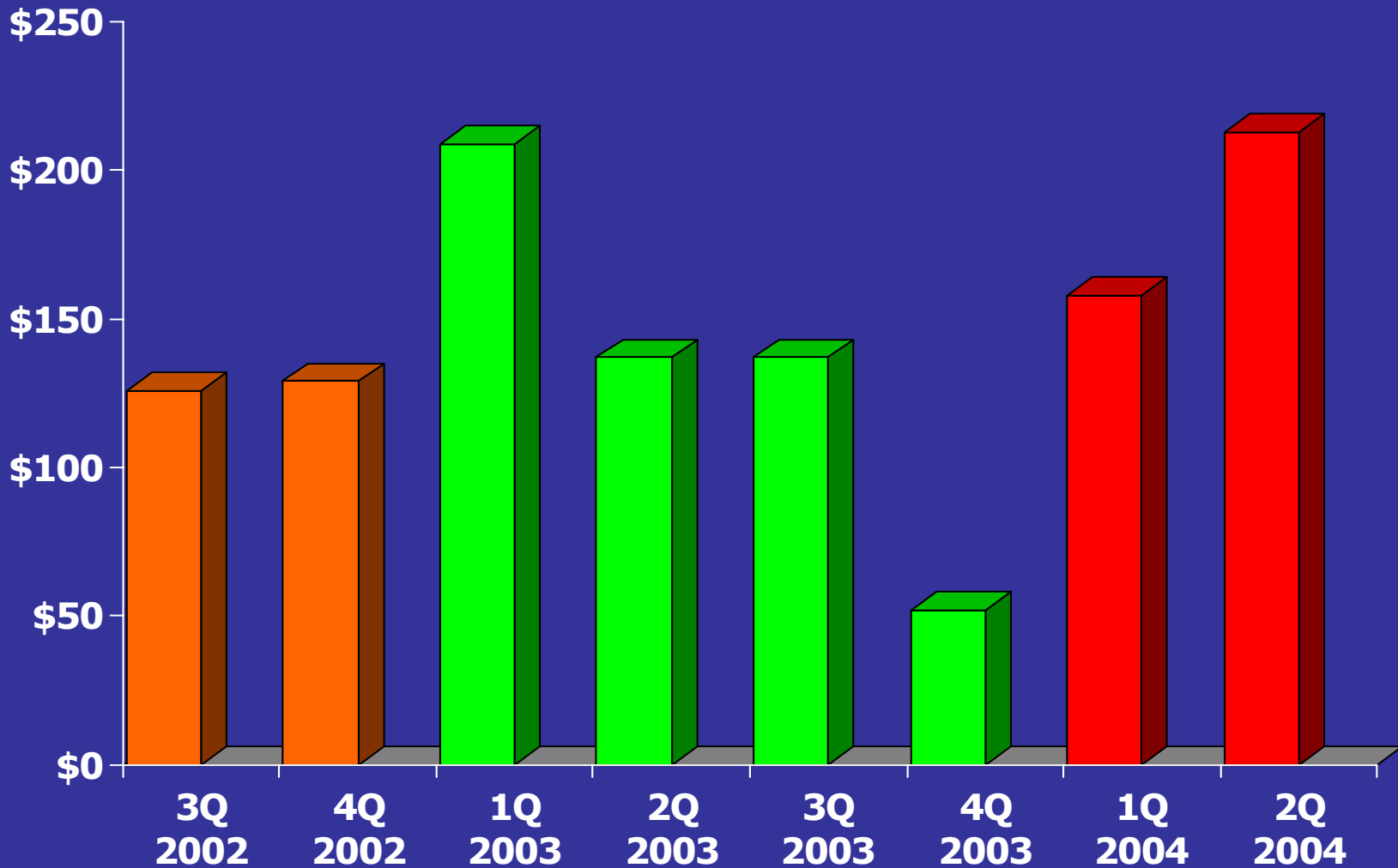
15 Consecutive  
Gold Harriman Awards



# Financial Highlights for the First Half 2004

- Railway operating revenues were a record \$3.5 billion
- Income from railway operations improved to a record \$77.1 million.
- Net income reached \$371 million or \$0.94 per share.
- Operating ratio improved to 78.0 percent compared to 83.4 percent last year, NS' best since the Conrail integration.

# Quarterly Net Income 2002-2004 (In Millions)





# The Heartland Corridor

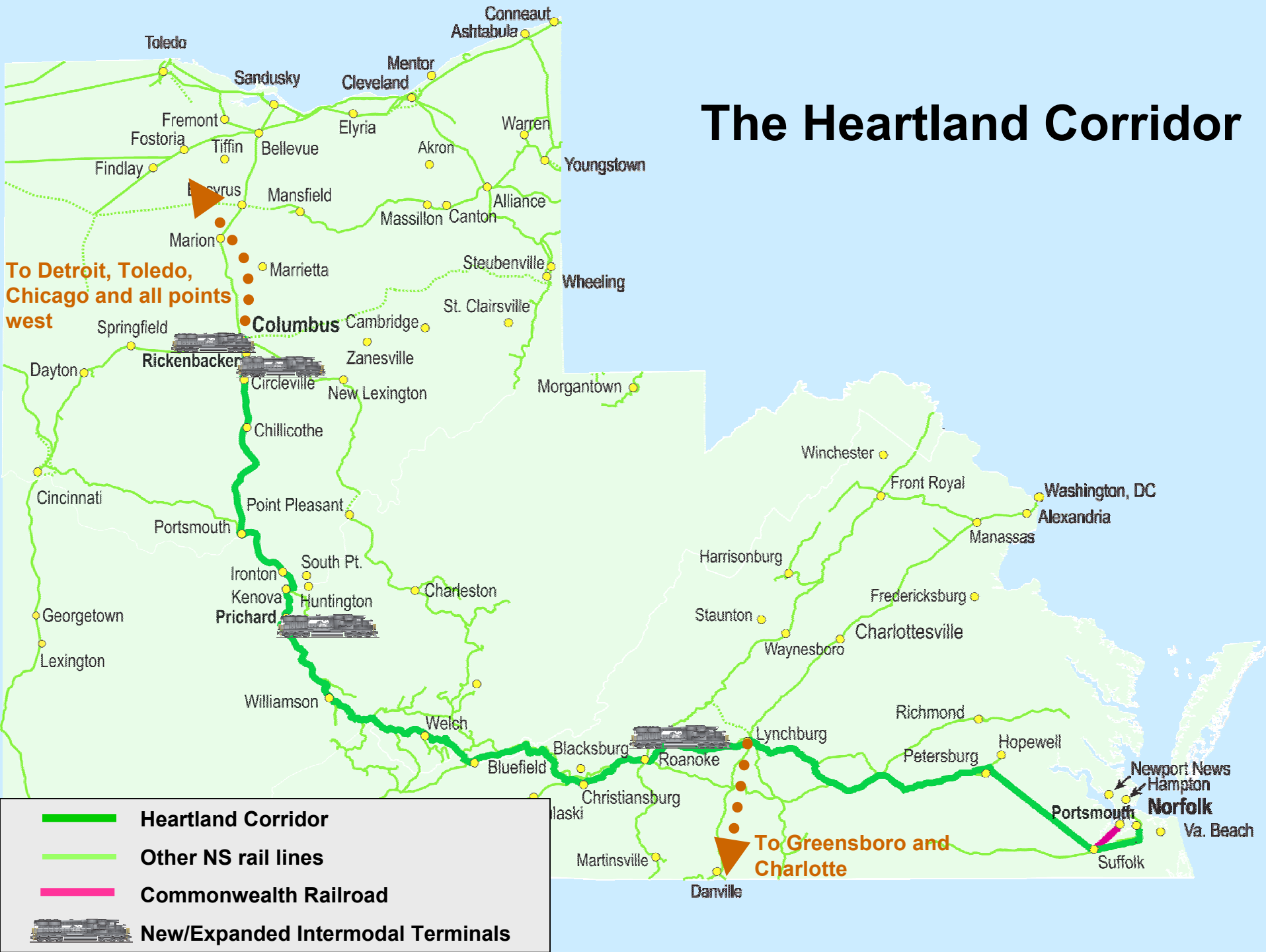
The Heartland Corridor is a portfolio of intermodal based projects designed to significantly improve mobility and increase freight capacity between the Mid-Atlantic regions of Virginia and North Carolina, and the Midwest and West Virginia.

# Heartland Corridor: Key Project Components

- “Western Freeway Rail Corridor”
  - Rail relocation project in Portsmouth, VA
- “Central Corridor Double-Stack Project”
  - Double-Stack Clearances: Between Roanoke, VA through WV, to Columbus, OH
  - New Intermodal Terminals
    - Prichard, WV
- Expanded Intermodal Capacity
  - Columbus, OH – Rickenbacker Airport
  - Columbus, OH – Roadrailer Terminal at Discovery Park
  - Roanoke, VA – New Terminal



# The Heartland Corridor



# Overall Benefits of The Heartland Corridor Project

- Improved mobility for motorists and truck freight along the Heartland Corridor, including some mobility benefits on the I-81 segment between Staunton and Lexington, VA
- Environmental benefits from reduced emissions through use of more efficient rail transportation
- Economic, tax and employment benefits from the introduction of new or expanded Intermodal capacity along the Heartland Corridor
- Preservation of central Ohio's status as the distribution hub of the Midwest

# Overall Benefits of The Heartland Corridor Project

- Preservation of rail infrastructure and employment on a rail corridor facing declines in coal traffic
- Reduced shipping costs for shippers along or shipping via the Heartland Corridor
- Improved access to the global trade network for shippers and manufacturers in Virginia, West Virginia, eastern Kentucky and Ohio

# Heartland Corridor: Project Cost Summary

- Western Freeway Rail Relocation Project \$60 million
- Central Corridor Double-Stack Initiative and Prichard Intermodal Terminal \$130 million
- New terminal capacity in Columbus, OH and Roanoke Valley, VA \$76 million
- **Total** **\$266 million**

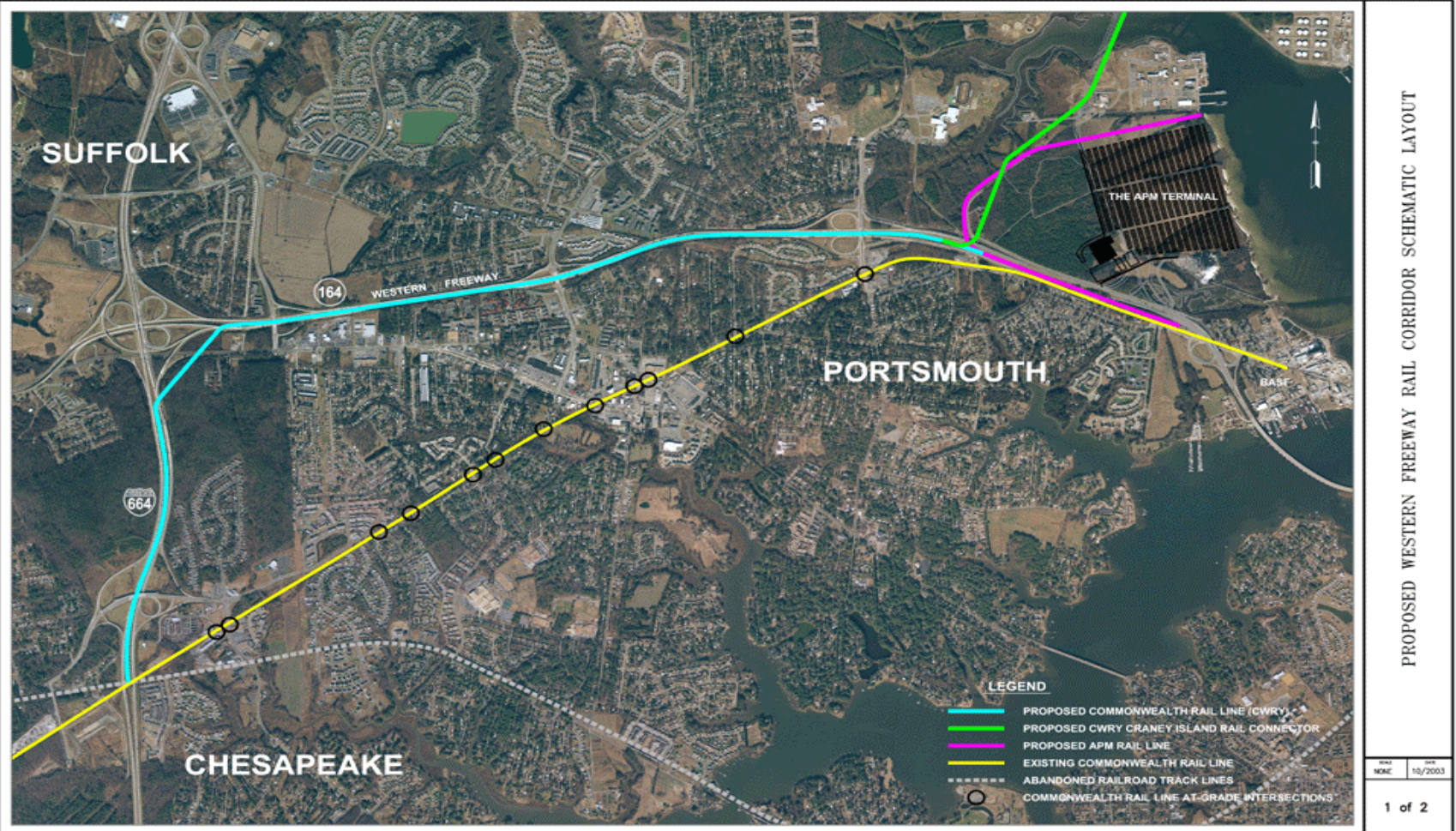


# Heartland Corridor: Western Freeway Rail Corridor

- **Description:** In Portsmouth, VA, the Heartland Corridor Project will relocate an existing Commonwealth Railroad rail line in Portsmouth, VA. The line will be moved from its current route through densely populated areas of Portsmouth, VA to a new route contained in the median of the Western Freeway and I-664.
- **Cost:** \$60 million

# The New Route Is North of the Existing Commonwealth Railway Line

To Craney Island



# Western Freeway Rail Corridor Benefits

- Fully grade separates route of the Commonwealth Railway between the proposed ports of Craney Island and Maersk's Cox property and the national intermodal network
- Eliminates 12 grade crossings in largely urban areas of Portsmouth, VA that are likely to see large increases in rail activity (12 trains per week currently to over 36 trains per week by 2016).
- Reduces truck traffic, particularly on eastern portion of I-64 and US 460
- Further enhances Hampton Roads' position as a major player in expanding global trade

# Central Corridor Double-Stack Project: Clearances

**Description:** This project will increase the vertical clearances above the high-speed, high capacity NS main line between Columbus , OH and Roanoke, VA. Upon completion, the rail network will have a fully cleared direct route between Chicago, IL and Norfolk, VA, and all markets in between. This cleared network will provide for the intermodal movement of goods between Virginia, North Carolina and West Virginia, Ohio and the rest of the Midwest in a highly efficient double-stack configuration.

**Cost:** \$112 Million

# Heartland Corridor: Central Corridor Double-Stack Project Scope

- 28 Tunnels
  - 30,000+ feet to be Cleared
  - Virginia, West Virginia and Kentucky
  - \$109 Million
- 24 Overhead Obstructions
  - Bracing Modifications, Fencing Modifications, Overhead Wire Removal, Miscellaneous Signal Work
  - West Virginia and Ohio
  - \$3 Million



# The Heartland Corridor: Tunnel Locations Requiring Modifications for Clearances



- Heartland Corridor
- Height Clearances Area
- Other NS rail lines

# Central Corridor Double-Stack Project: Prichard West Virginia Intermodal Terminal

**Description:** This project involves construction of a new intermodal terminal facility in Prichard, WV. This terminal will provide Prichard and the surrounding markets with direct intermodal access to global markets. Intermodal service will be provided between Prichard and Chicago and all points west, as well as the ports in Hampton Roads

**Phase 1 Capacity:** 30,000 units

**Cost:** \$18 Million

# The New Facilities in the Roanoke Valley and Prichard Will Be Similar in Scope and Design to Norfolk Southern's New Facility in Cleveland, OH



# Qualified Benefits of the Central Corridor Double-Stack Project

- Provides a new intermodal facility in West Virginia, a region that currently has no intermodal connections to the domestic and global intermodal network.
- Provides new, lower cost intermodal freight transportation options to shippers in the Appalachian regions of West Virginia, eastern Kentucky, and southeastern Ohio. This infrastructure improvement will provide a base for attracting new business to the region.
- Facilitates conversion of freight from highway to rail
  - Reduces traffic congestion on key highways along the Heartland Corridor
  - Reduces emissions by up to 75% on freight converted to rail



# Quantified Benefits of the Central Corridor Double-Stack Project

According to a study performed by the Nick J. Rahall Appalachian Transportation Institute at Marshall University, the Central Corridor Double-Stack Project provides the following financial benefits

- Over 20 years, provides \$201 to \$368 million in economic benefits to shippers moving freight in the Heartland Corridor.
- Increases economic activity in West Virginia by \$50 million per year with associated increases in employment and tax revenue, as well as providing \$4.4 million to \$11.3 million in direct benefits annually to existing shippers in West Virginia, eastern Kentucky and southeastern Ohio.
- [www.marshall.edu/ati/research/FR/TRP99-24\\_FR.pdf](http://www.marshall.edu/ati/research/FR/TRP99-24_FR.pdf)



# Heartland Corridor: Expanded Terminal Capacity

**Description:** The Heartland Corridor project will create significant new Intermodal capacity in Columbus, OH and Roanoke, VA

- This project provides for a major new state-of-the-art intermodal facility adjacent to the Columbus Regional Airport Authority's Rickenbacker International Airport, south of Columbus.
- This project also converts the existing Discovery Park intermodal terminal in Columbus, OH in to a Roadrailer terminal. The Roadrailer network would connect Columbus to markets throughout the Midwest, South, and Northeast, and the Mexican gateway. The Roadrailer services serve a variety of industries, with a focus on the auto parts business.
- This project provides for a new intermodal facility in the Roanoke Valley region of western Virginia.

# Heartland Corridor: Expanded Terminal Capacity (Cont'd)

<b>Phase I Capacity, Rickenbacker:</b>	250,000
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<b>Phase I Capacity, Discovery Park:</b>	100,000
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<b>Phase I Capacity, Roanoke:</b>	17,000
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**Cost: \$76 Million**

# The New Columbus Facility Will Be Similar in Scope and Design to NS' New Austell Facility in Atlanta, GA



# Heartland Corridor

## Qualified New Terminal Benefits

- Provides expanded capacity for highly efficient, low cost intermodal transportation in central Ohio.
- Introduces intermodal shipping options to western Virginia for the first time.
- Introduces a unique transportation option for central Ohio shippers through the Roadrailer Network
- Contributes to lower truck mileage and emissions on Ohio Interstates
- Provides significant employment, tax and other economic benefits
- Preserves central Ohio's status as the distribution hub of the Midwest



# Virginia's I-81 Corridor:

*A Rail Freight Solution to Highway Congestion  
that Calls for Regional Public Private Partnership Investment*





Norfolk Southern is responding  
to public interest in its  
participation in addressing  
I-81 demands

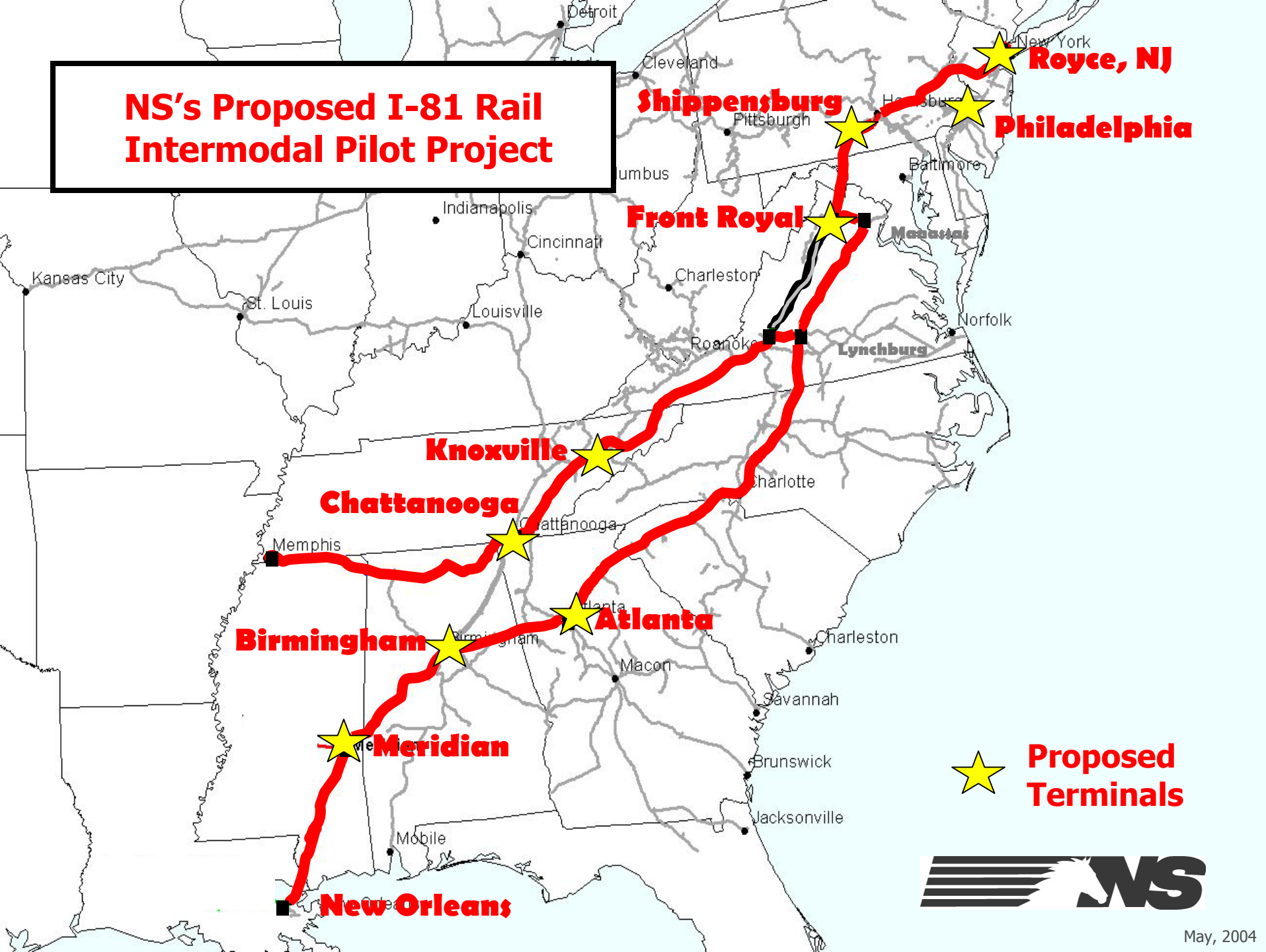
# Virginia's Challenge

- Truck traffic is overwhelming I-81
- Freight traffic crosses state boundaries
- Left unchecked, the problem will only worsen
- By 2020 I-81 freight traffic is expected to increase 80-90% (VDOT)
- “Do nothing” is not an option



## **Norfolk Southern's Proposed I-81 Rail Intermodal Pilot Program**

# NS's Proposed I-81 Rail Intermodal Pilot Project



# I-81 Intermodal Pilot Project: Assumptions

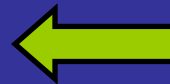
- Open technology
- 30 mph average intermodal train speed
- 150 average units per train
- 6 trains/day each direction
- Service complimentary to existing intermodal offerings



# “Open” Intermodal Technology: CP’s Expressway Service



**Circus ramp loading**





# Open Technology Advantages

## Why I-81 Diversion Potential is High

- Accepts all over-the-road platforms, accommodating all truckers and all private fleets
- No lifting, so no specialized equipment
- Rapid transfer from highway to rail
- Relatively low terminal capital expenditure costs
- The basis for Reebe's estimated 30+% truck diversion potential under the long-term, full-build, scenario
- *Good complement to conventional intermodal strategy that enables I-81 highway-to-rail conversion for the least cost in the least amount of time*

# I-81 Pilot Project: Diversion Potential

- Assuming we structured a public/private arrangement, we estimate 518,000 truck diversions annually through the I-81 corridor in Virginia by year three following start-up
- This represents about 10-12% of I-81 truck traffic
- With additional incremental investment, more trains and more diversions are possible

# I-81 Pilot Project:

## *Timing*

- From the date on which the public/private funding becomes available, **the rail structure** suggested by this analysis **could be in place within 24 to 36 months**

# I-81 Pilot Project:

## *Rail Capital Costs\* (million)*

Virginia infrastructure		\$ 306
– Track	\$280	
– Terminals	\$26	
Non-Virginia infrastructure		\$ 267
– Track	\$51	
– Terminals	\$216	
Rolling stock		\$ 315
– Freight rail cars	\$190	
(830 @ \$230k each)		
– Locomotives	\$125	
<b>Total:</b>		<b>\$ 890</b>

\* Preliminary

# I-81 Pilot Project:

## *Rail Capital Costs by State\*(million)*

<u>State</u>	<u>Speed &amp; Line Capacity Improvements</u>	<u>Terminals</u>
NJ	\$4.5	\$22.5
PA	\$11.5	\$77.4
MD	\$6.2	--
WV	\$11.4	--
<b>VA</b>	<b>\$280.0</b>	<b>\$26.0</b>
TN	--	\$39.3
NC	\$4.9	--
SC	\$6.3	\$17.1
GA	\$4.0	\$29.6
AL	--	\$12.2
MS	<u>\$1.6</u>	<u>\$18.1</u>
<b>Total:</b>	<b>\$330.7</b>	<b>\$242.5</b>

\* Preliminary

# Virginia Impact

- New Trains

– South of Lynchburg	8 (4/day/direction)
– West of Lynchburg	4 (2/day/direction)
– North of Lynchburg	12 (6/day/direction)



# Regional Cooperation is Required

- Both the VA-only and NS's pilot program still require capital expenditures outside of Virginia
- States from Mississippi to New Jersey will benefit from this Virginia initiative
- A Virginia-only scenario shortchanges the diversion potential
- We need to learn how to do this, and I-81 is a great test platform

# I-81—Next Steps

- Identify a source for \$17 million to undertake the preliminary engineering work to provide robust line improvement and terminal cost estimates (\$9 million in Virginia)
- Run a full simulation on the train plan to ensure line improvements are consistent with the train plan (NS has underway)
- Test receptivity of non-VA states for terminal capital assistance (all-states meeting scheduled this Autumn)
- Complete Phase I of the NEPA (environmental) analysis including the NS pilot project alternative (due for a March/April, 2005 release)
- Begin development of revenue generating options, performance standards and cost sharing formulas

**A word or two about  
Trans-Dominion Express...**

An aerial photograph of a multi-lane highway winding through a lush green landscape. A long, single-file line of semi-trucks stretches across the upper half of the image, following the curve of the road. The trucks have various colored trailers, including blue, white, and orange. Below the main line of trucks, several other vehicles, including cars and a few more trucks, are visible on the highway. The surrounding area is filled with dense green trees and vegetation. In the upper right, a small body of water is visible. The text "Thank You" is overlaid in a large, white, italicized font with a black outline in the upper center of the image.

***Thank You***

**Any Questions?**